

Work Order ID 66359

Page 1

Friday, February 11, 2011 1:13:55 PM

Item ID: D206-642-541

Accept



Setup Start



Revision ID:

Stop



Item Name: Replacement Skidtube

Start Date: 2/14/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 2/28/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: WKF Date: 11-02-11

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

D3274

D

IIN-D206-642

Rev M

100

0.00



DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile & type labels per PPP D206-642-541 CHG003

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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QtyReject
QtyReject
NumberInsp.
Stamp

110

0.00



Skidtubes

Skidtubes

Memo

0.00

Skidtubes

VERIFY AND INSPECT THE MATERIAL PRIOR TO USE*

1- Bend FWD end of tube using bend prog D3274 FWD and foil 10 as per dwg D3274, cut fwd end of tube with saw table setup D3274.

2- remove fwd indexing ridge as per dwg D3274. Prepare for welding

3- weld fwd cap as per dwg D3274 and Q81004

AR Aluminum Rod Batch: M111385/M116577

4- grind fwd cap weld on top surface only

5- Cut AFT end of tube at 170.9" as per dwg D3274 and deburr end.

6-Drill Aft cap pilot hole using DT8025

7 -Cleco DT8025 in position and install pilot hole drill jig DT8742A,B,C,D. Drill 3/16" pilot holes as per Dwg D3274

8 -Remove inner indexing ridge on aft end of skidtube as per Dwg D3274 scribe batch #

9 -Open aft end cap holes to Ø0.208" as per Dwg D3274. Deburr aft end.

DP 11-3-10

BE 11/04/13

DP 11-4-14

DP 11-4-14

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
114 	QC5- Inspect part completeness to step on W/O	0.00							
QC Quality Control	Memo	0.00				<i>M</i>	<i>11</i>	<i>04</i>	<i>15</i> <i>(P)</i>
116 	QC10- Inspect visual per QSI004- ground welds	0.00							
QC Quality Control	Memo	0.00				<i>(P)</i>			
120 	Chemical Conversion Coat per QSI005 4.1	0.00							
HandFinish Hand Finishing	Memo	0.00							

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Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

11.05.11

150

Skidtubes

0.00



Skidtubes

Memo

0.00

Skidtubes

1-Open Ø0.313" and 0.375" crossbolt spacer holes as per Dwg D3274

2-Deburr crossbolt spacer holes as per Dwg D3274 and blow out chips from inside the tube

3-Bond web in place as per Dwg D3274 & QSI 015.

A/R ☐ Sikaflex-291 ☒ 116945 ☐Sikaflex expire date: ☐ 15 Jan 2012Start: ☐ 11.05.11 Time: ☐ 5:00 PMFinish: ☐ 11.05.11 Time: ☐ 1:00 PM

(Adhere for 12 hours)

11.05.11

W/O:		WORK ORDER CHANGES					
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Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

1 0 BE 11/05/18

170



Skidtubes

Skidtubes

Skidtubes

Memo

0.00

0.00

1-Bend AFT end of tube using bend prog. D3274 AFT as per dwg D3274. Install drop pins in crossbolt spacer holes to maintain web position.

2- DRILL PILOT HOLES FOR WEARPLATES USING D3274-1T2
OPEN HOLES TO .297" . Deburr3-DRILL JOE PIN HOLE .640" DIA AS PER DWG USING DT8935 FWD
END OF TUBE
DEBURR INSIDE OF HOLE AS NECESSARY (DO NOT ENLARGE HOLES)
REMOVE ANY FOREIGN OBJECTS INSIDE OF TUBES

4- Countersink crossbolt spacer holes as per Dwg D3274

5- prepare for welding

DP 11-5-18

BB 11/05/24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

180



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

4.70 3.0
BEND

Memo

0.00

1 0 BE 11/05/24

190



Skidtubes

Skidtubes

Skidtubes

Memo

0.00

1-Insert D2649 & D3275-1 crossbolt spacers. Weld as per QSI 004 and Dwg D3274. Remember to back drill each hole before welding the other side. Use aluminum rod

A/R ☐ Aluminum Rod ☒ MH1385

3-Grind cross bolt welds flush as per Dwg D3274.

4-Counterbore 5/16" x 0.750" deep as per Dwg D3274 and deburr.

BE 11/05/24
JB 11/05/25
BE 11/05/26
DL 11/05/24

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Customer:

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

200



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

S u l o s b z

Memo

0.00

210



QC

Quality Control

QC10- Inspect visual per QSI004- ground welds

0.00

S u l o s b z

Memo

0.00



220



HandFinish

Hand Finishing

Pressure Wash per QSI005 4.3

0.00

Memo

0.00

Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch

IX / mp 11/05/30

W/O:		WORK ORDER CHANGES					
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Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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230 White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum 0.00



Powdercoat

Powder Coating

M116964

Memo

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

10:15
320
10:45

0.00

1X ~~0~~ M/L 11/05/30

240 QC3- Inspect Part Finish 0.00



QC

Quality Control

Memo

0.00

1 ~~0~~ M/L 11/06/03

250 HandFinishing 0.00



HandFinish

Hand Finishing

Memo

0.00

1-Install Nut Plate as per Dwg D3274. Apply LPS-3 to Nut Plate and rivets.
A/R ☐ A ☐ LPS-3 ☐ M1109956

2-Install inserts as per Dwg D3274. Use a drop of Sikaflex inside insert holes a
A/R ☐ Sikaflex-291 ☐ M1164545
Sikaflex expire date: ☐ 12/01

1 ~~0~~ M/L 11/06/02

W/O:		WORK ORDER CHANGES					
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Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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260



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

Inspect Nut Plate & Inserts

0.00

Sub 6/03



270



HandFinish

Hand Finishing

HAND FINISHING RESOURCE #1

0.00

Memo

1-Install wearpads & gaskets as per Dwg D3274.

2-Install ring as per Dwg D3274

A/R ☐ Sikaflex-291 ☐ 1116945

Sikaflex expire date: ☐ 12/01

3-Inspect for foreign objects as per QSI 024

4-Spray inside of tube on both sides of web with LPS-3

A/R LPS-3 Batch: PA

5-Install Aft Cap and seal with Sikaflex. Clean excess adhesive.

A/R ☐ Sikaflex-291 ☐ 1116945

Sikaflex expire date: ☐ 12/01

1 0 11/06/03

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Run Start

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

280

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

S 11/06/03



290

Identify as per dwg & Stock Location: _____

0.00



Packaging

Memo

0.00

Packaging

PPP 66367

11/06/03

300

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

OK 11/06/03
C2 11/06/03

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Picklist Print

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Page 1

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Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube


Start Date: 2/14/2011

Required Date: 2/28/2011


Start Qty: 1.00

Required Qty: 1.00


Comments: IPP Rev:B 05.09.23 Revised per D206-642 Rev. J KJ/JLM
 IPP Rev:C 07-02-23 Added SS Wearplates & Gaskets JLM
 IPP Rev:D 07-12-06 replace NAS1515H3L to D3672-1 DD
 IPP Rev:E 08-04-17 as per PAR 08-015 DD verified by:EC
 IPP Rev:F 08-06-02 add comment DD verified by:EC
 IPP Rev:G 08-10-09 revise details DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2600-1-190  Extrusion Round 3" 206		Manufactured	No			110	Each	43.0000	1	1			

Location	Loc Qty	Loc Code
LG	43	
47575	2	
59874	41	

D3285-1  Cap		Manufactured	No			110	Each	114.0000	1	1			
--	--	--------------	----	--	--	-----	------	----------	---	---	--	--	--

Location	Loc Qty	Loc Code
LG	114	
52511	66	
52647	48	

D3282-041  Float Web (206L/407)		Manufactured	No			150	Each	4.0000	1	1			
---	--	--------------	----	--	--	-----	------	--------	---	---	--	--	--

Location	Loc Qty	Loc Code
LG	4	
65292	1	
65293	3	
66363		

DP 11-3-10
BE 1/04/13

11.05.4

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Parent Item Name: Replacement Skidtube



Start Date: 2/14/2011

Required Date: 2/28/2011

Start Qty: 1.00

Required Qty: 1.00

D2649 Manufactured No 190 Each 243.0000 12 12



Cross Bolt Spacer

Location	Loc Qty	Loc Code
LG	243	
58545	2	
60652	4	
61496	2	
62889	11	
63359	3	
65317	221	



BE 11/05/24
B68507 x2
B68224 x10

D3275-1 Manufactured No 190 Each 53.0000 12 12



Crossbolt Spacer

Location	Loc Qty	Loc Code
LG	53	
53453	8	
62399	1	
63546	19	
65295	25	



BE 11/05/24
B67767 x12

CR3212-4-03 Purchased No 250 Each 1,863.000 2 2



Cherry Rivet

Location	Loc Qty	Loc Code
ST311	1863	
110153	35	
111359	5	
112314	2	
114436	448	
114450	31	
114859	1342	



u106103

x2

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Shop Packet Print

Page 2

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Start Date: 2/14/2011

Required Date: 2/28/2011



Start Qty: 1.00

Required Qty: 1.00

D3415-041 Manufactured No 250 Each 25.0000 1 1

 Nut Plate  HL 1106103



Location Loc Qty Loc Code

ST056 25
 33842 25

CCR264SS3-3 Purchased No 250 Each 154.0000 2 2

 Cherry Rivet  HL 1106103

Location Loc Qty Loc Code

ST311 154
 112314 4
 113539 44
 113973 106

ALS4-1032-130 Purchased No 250 Each 1,355.000 78 78

 Insert  HL 1106103

Location Loc Qty Loc Code

PKG11 1220
 114723 220
 116864 1000
 ST282 96
 110511 10
 115911 86
 ST381 39
 114654 39

1117086

x2

1117717

x78

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Shop Packet Print

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Start Date: 2/14/2011

Required Date: 2/28/2011

Start Qty: 1.00

Required Qty: 1.00

D3536-15

Manufactured No

270

Each

10.0000

1

1



Gasket



11/06/03

Location

Loc Qty

Loc Code

FP

1

56055

1

FP011

8

63568

8

FP11

1

59238

1

1366559

X1

D3536-23

Manufactured No

270

Each

11.0000

1

1



Gasket



11/06/03

Location

Loc Qty

Loc Code

FP011

1

63570

1

ST

10

66240

10

1366560

X1

D3536-35

Manufactured No

270

Each

16.0000

1

1



Gasket



11/06/03

Location

Loc Qty

Loc Code

FP012

16

58683

1

63579

1

65573

2

66237

12

1366599

X1

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Friday, February 11, 2011 1:13:48 PM

Page 5

Work Order ID: 66359

Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 2/14/2011



Required Date: 2/28/2011

Start Qty: 1.00



Required Qty: 1.00

D3536-39 Manufactured No 270 Each 19.0000 1 1

 Gasket  JH 1106103



Location	Loc Qty	Loc Code
FP012	18	
63578	6	XL
66241	12	
FP12	1	
58215	1	

D3535-15 Manufactured No 270 Each 3.0000 1 1

 Wearshoe  JH 1106103

Location	Loc Qty	Loc Code
FP18	3	
63569	3	1366558 XL

D3535-35 Manufactured No 270 Each 12.0000 1 1

 Wearshoe  JH 1106103

Location	Loc Qty	Loc Code
FP018	12	
65926	12	1367548 XL

D3535-39 Manufactured No 270 Each 13.0000 1 1

 Wearshoe  JH 1106103

Location	Loc Qty	Loc Code
FP-18	13	
64076	13	XL

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

• Picklist Print

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Page 6

Work Order ID: 66359

Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 2/14/2011

Required Date: 2/28/2011

Start Qty: 1.00

Required Qty: 1.00

D3535-23 Manufactured No 270 Each 5.0000 1 1

 Wearshoe  all uloc6103

Location

Loc Qty

Loc Code

FP021



5

367594

x1

63571

4

D3537-3 Manufactured No 270 Each 30.0000 1 1

 Wearpad  (x1) all uloc6103

Location

Loc Qty

Loc Code

FP17



30

368944

x9

65929

30

D3537-1 Manufactured No 270 Each 39.0000 9 9

 Wearpad  all uloc6103

Location

Loc Qty



Loc Code

FP017

39

65057

39

AN960C10L NAS1149C0332 Purchased No 270 Each 25.0000 80 80

 washer  all uloc6103

Location

Loc Qty

Loc Code

ST245

25

1117291

x90

107534

25

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Friday, February 11, 2011 1:13:48 PM

Page 7

Work Order ID: 66359

Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 2/14/2011

Required Date: 2/28/2011

Start Qty: 1.00

Required Qty: 1.00

AN960C416 NAS1149C0463 Purchased No

270 Each 29.0000 1 1



washer

M 117735



xl ul u106103

Location

Loc Qty

Loc Code

ST346

29

100993

29

D3672-1 Manufactured No

270 Each 1,149.000 2 2



Phenolic Washer



ul u106103

Location

Loc Qty

Loc Code

ST077

1149

42329

10

52505

139

64177

1000

AN3C4A Purchased No

270 Each 1,420.000 80 80



BOLT



ul u106103

Location

Loc Qty

Loc Code

ST350

1420

M 117094

115300

25

116075

361

116590

34

116704

1000

AN4C5A Purchased No

270 Each 439.0000 1 1



BOLT



ul u106103

Location

Loc Qty

Loc Code

ST346

439

110552

1

112243

438

xl

Friday, February 11, 2011 1:13:48 PM

Shop Packet Print

Page 7

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

• Picklist Print

Friday, February 11, 2011 1:13:48 PM

Page 8

Work Order ID: 66359



Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 2/14/2011

Required Date: 2/28/2011

Start Qty: 1.00

Required Qty: 1.00

D2646

Manufactured No

270

Each

76.0000

1

1



u106103

Aft Cap

Location

Loc Qty

Loc Code

FP-4

6

57332

6

FP6

16

52663

3

62678

12

63633

1

Return 2010

54

62678

54

u1

D3413-1

Manufactured No

270

Each

25.0000

1

1



u106103

Ring

Location

Loc Qty

Loc Code

ST420

9

62961

9

B66945

u1

ST473

16

51586

1

53446

5

65294

10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN CP	DRAWN BY PH	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. D3274	REV. D SHEET 1 OF 4
DATE 06.12.19		TITLE SKIDTUBE ASSEMBLY SCALE NTS	
A	04.03.15	NEW ISSUE	
B	04.08.09	MOVE SADDLE HOLE: 42.14 WAS 42.76	
C	05.03.16	ADD -043; NEW INSERTS	
D	06.12.19	NEW INSERTS, SS WEARSHOE + GASKET	

RELEASED
07.02.12 **[Signature]**
DEO ATTACHED

Qty -041	Qty -043	Part Number	Description
X		D3274-041	SKIDTUBE ASSEMBLY
	X	D3274-043	SKIDTUBE ASSEMBLY
1	1	D2600-1-240	EXTRUSION
1	1	D2646	AFT CAP
12	12	D2649	CROSS BOLT SPACER
12	37	D3275-1	CROSS BOLT SPACER
1	1	D3282-041	FLOAT WEB
1	1	D3285-1	CAP
1	1	D3413-1	RING
1	1	D3415-041	NUT PLATE
1	1	D3535-15	WEARSHOE
1	1	D3535-23	WEARSHOE
1	1	D3535-35	WEARSHOE
1	1	D3535-39	WEARSHOE
1	1	D3536-15	GASKET
1	1	D3536-23	GASKET
1	1	D3536-35	GASKET
1	1	D3536-39	GASKET
9	9	D3537-1	WEARPAD
1	1	D3537-3	WEARPAD
78	78	ALS7-1032-130	INSERT (or AKS4-1032-130, ALS4-1032-130, AELS-1032-130)
80	80	AN3C4A	BOLT
1	1	AN4C5A	BOLT
1	1	AN960C416	WASHER
80	80	AN960C10L	WASHER
2	2	CCR264SS3-3	RIVET
2	2	CR3212-4-03	RIVET
2	2	NAS1515H3L	WASHER

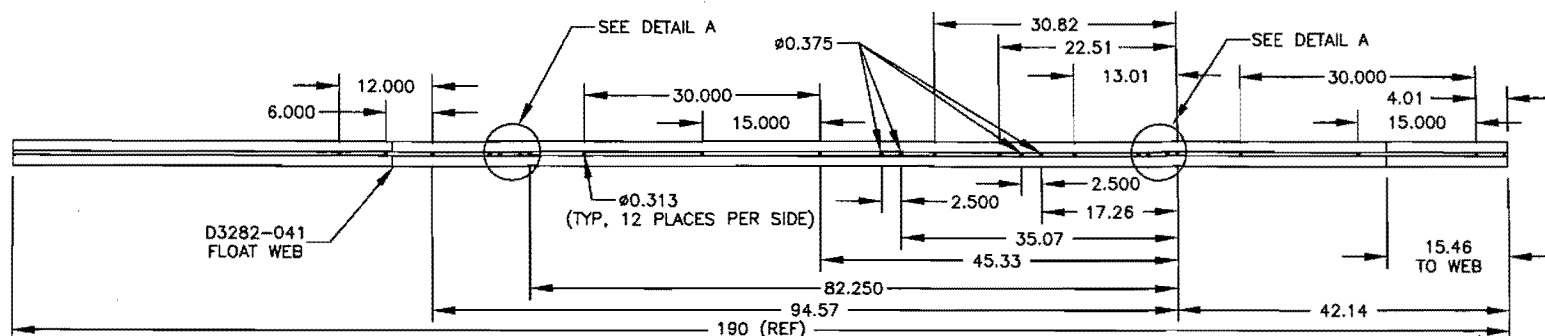
GENERAL NOTES:

1. TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
2. DAMAGE TOLERANCE ON FWD BEND:
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 7 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
3. ALL HOLES DRILLED ON CENTERLINES.
4. BOND D3282-041 FLOAT WEB INTO D3274-1/-3 OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/291 ADHESIVE PER DART QSI 015. ENSURE HOLES LINE-UP.
5. WELDING TO BE DONE PER DART QSI 004.
6. FINISH: - ACID ETCH, ALODINE ASSEMBLY PER DART QSI 005 4.1
- POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
7. DRILL Ø0.297 HOLES FOR ALS7-1032-130 INSERTS USING DT3274-1T2 BEFORE FINISH. INSTALL ALS7-1032-130 INSERTS AFTER FINISH. SEAL WEARSHOE BOLTS WITH SIKAFLEX -241/-291.
8. SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.

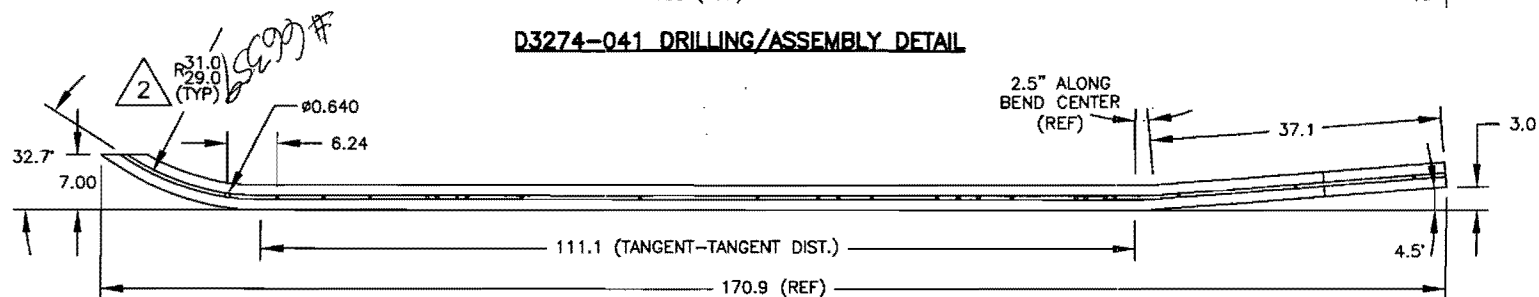
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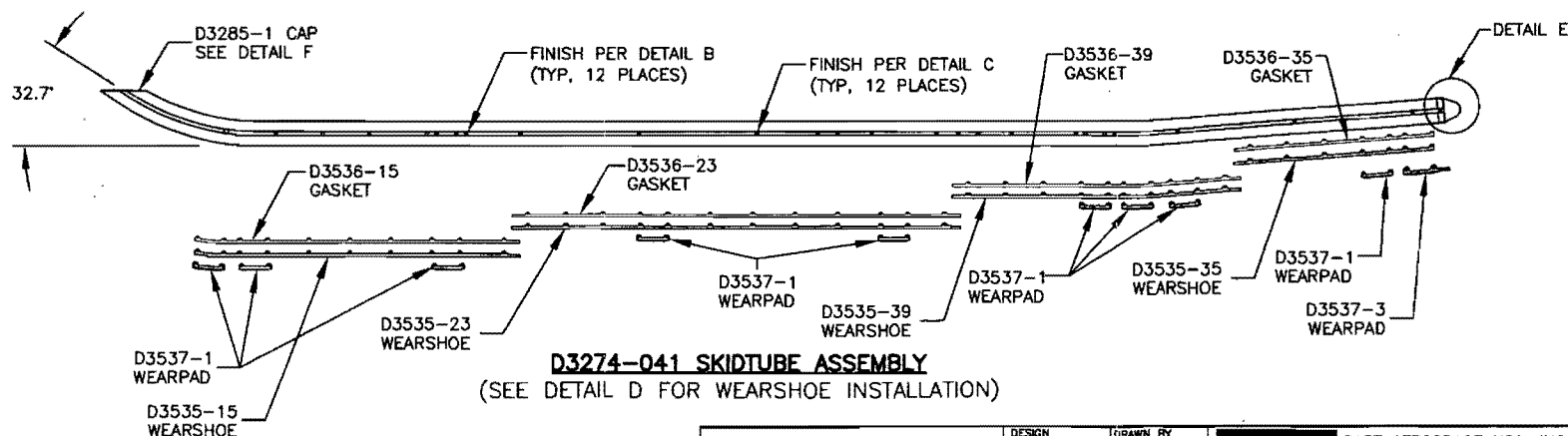
DEO ATTACHED



D3274-041 DRILLING/ASSEMBLY DETAIL



D3274-041 BEND/DRILLING DETAIL



D3274-041 SKIDTUBE ASSEMBLY
(SEE DETAIL D FOR WEARSHOE INSTALLATION)

RELEASED

07.02.12

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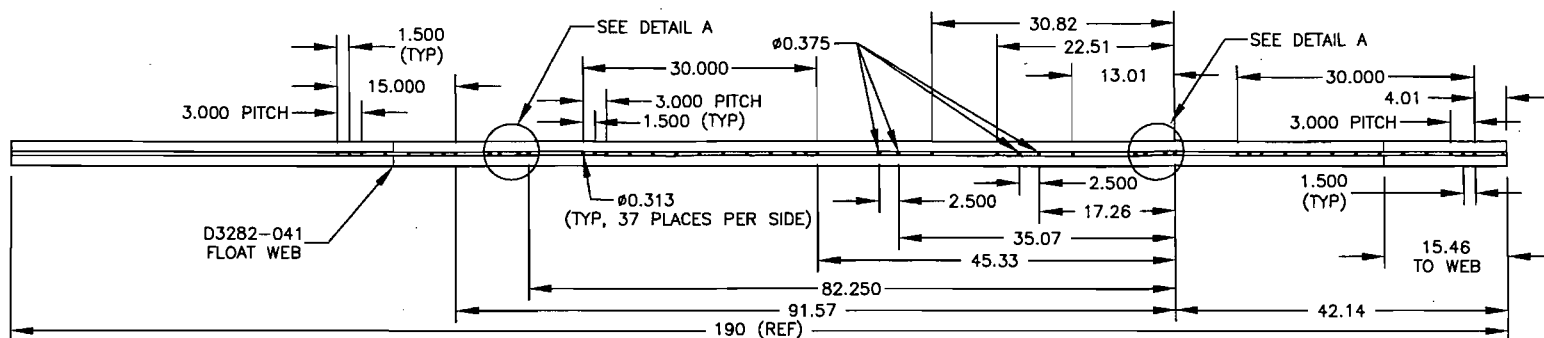
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DESIGN	CP	DRAWN BY	PH	DART	DART AEROSPACE USA, INC.
CHECKED	#	APPROVED	#	D3274	REV. D
DATE	06.12.19	TITLE	SKIDTUBE ASSEMBLY	SHEET 2 OF 4	SCALE
					1:15

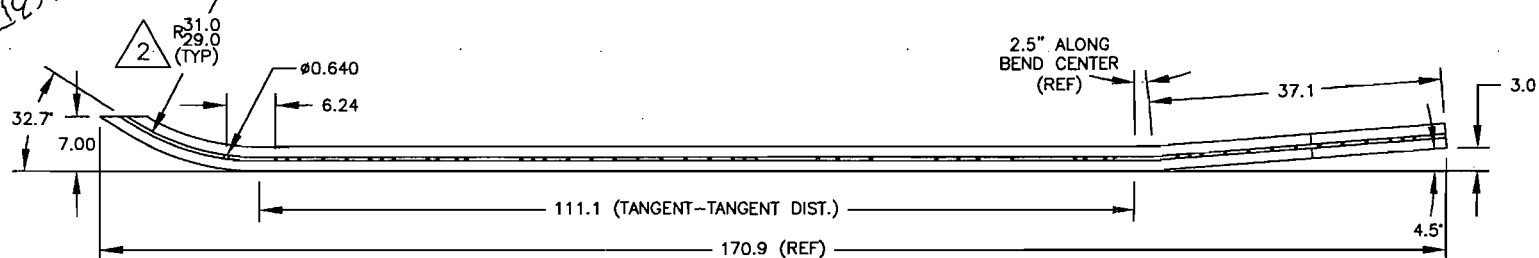
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100

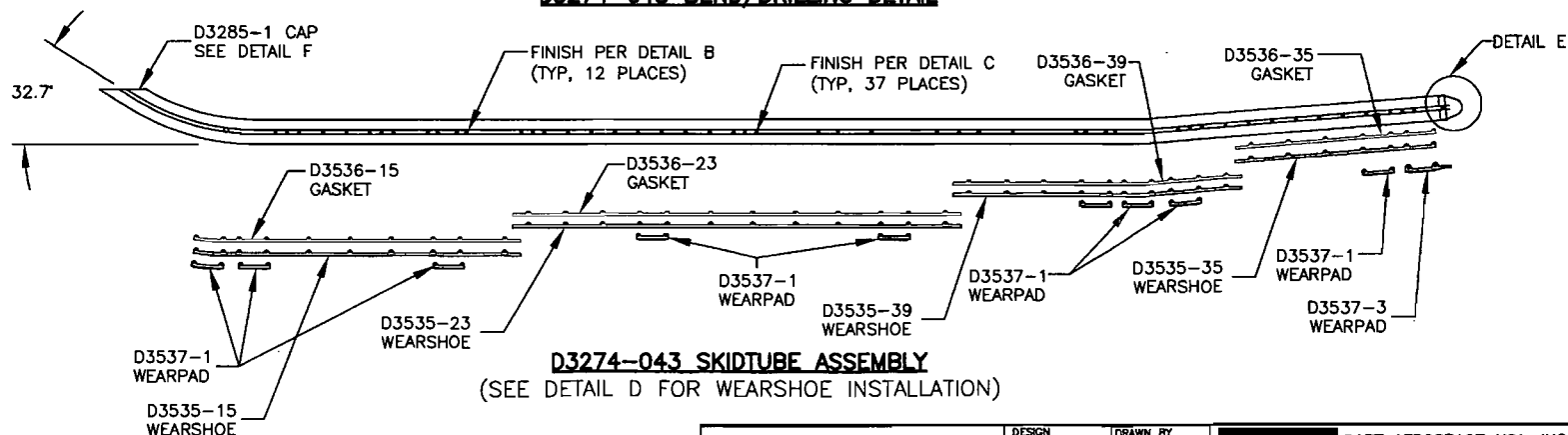
DEO ATTACHED



D3274-043 DRILLING/ASSEMBLY DETAIL



D3274-043 BEND/DRILLING DETAIL



D3274-043 SKIDTUBE ASSEMBLY
(SEE DETAIL D FOR WEARSHOE INSTALLATION)

RELEASED

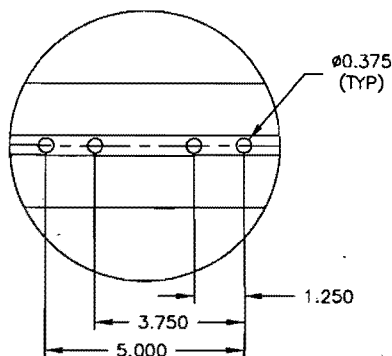
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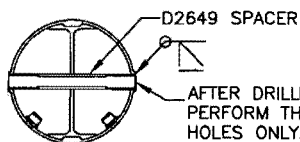
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DESIGN	CP	DRAWN BY	PH	DART	DART AEROSPACE USA, INC.
CHECKED	#	APPROVED	#	D3274	REV. D
DATE	06.12.19	TITLE	SKIDTUBE ASSEMBLY	SHEET 3 OF 4	SCALE 1:15

DETAIL A: DRILL DETAIL

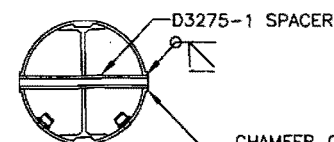


DETAIL B FOR 0.375 HOLES ONLY



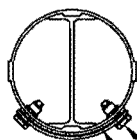
- AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR 0.375
HOLES ONLY:
1. CHAMFER HOLE 0.030x45°
 2. INSERT D2649 SPACER
 3. WELD INTO PLACE AND GRIND FLUSH
 4. C'BORE TO 0.313x0.75 DEEP

DETAIL C FOR 0.313 HOLES ONLY



CHAMFER 0.030x45°
(TYP)

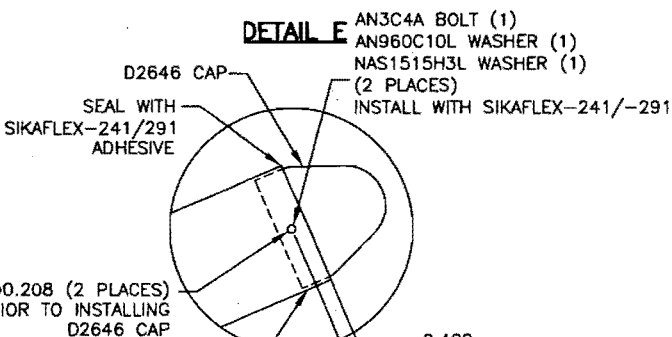
DETAIL D



- ALS7-1032-130 INSERT (1)
AN3C4A BOLT (1)
AN960C10L WASHER (1)
(78 PLACES)

GASKET/WEARSHOE/WEARPAD (REF)

DETAIL E



- AN3C4A BOLT (1)
AN960C10L WASHER (1)
NAS1515H3L WASHER (1)
(2 PLACES)
INSTALL WITH SIKAFLEX-241/-291

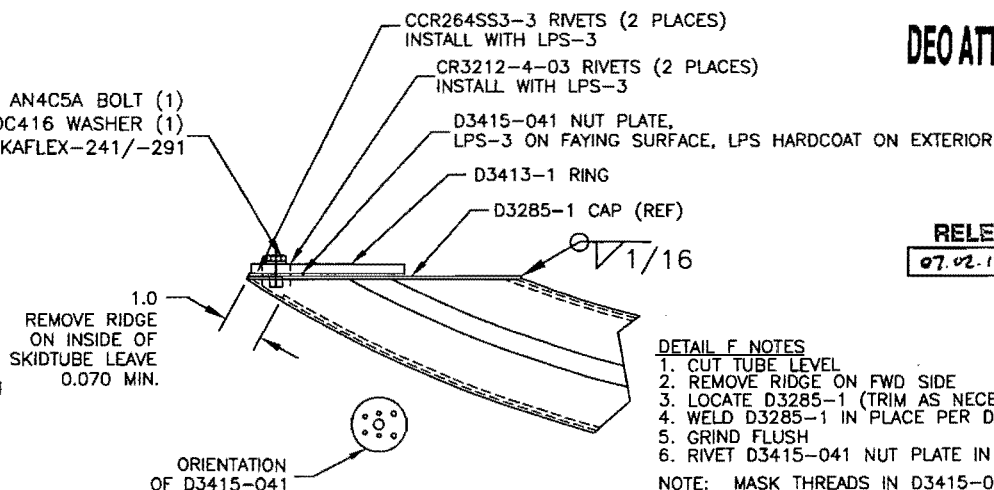
SEAL WITH
SIKAFLEX-241/291
ADHESIVE

0.208 (2 PLACES)
DRILL PRIOR TO INSTALLING
D2646 CAP

BORE OUT END OF SKIDTUBE
TO 0.75 DEPTH AND 0.070 WALL

0.400

DETAIL F: END FINISHING DETAIL



CCR264SS3-3 RIVETS (2 PLACES)
INSTALL WITH LPS-3

CR3212-4-03 RIVETS (2 PLACES)
INSTALL WITH LPS-3

D3415-041 NUT PLATE,
LPS-3 ON FAYING SURFACE, LPS HARDCOAT ON EXTERIOR

D3413-1 RING

D3285-1 CAP (REF)

1/16

1.0
REMOVE RIDGE
ON INSIDE OF
SKIDTUBE LEAVE
0.070 MIN.

ORIENTATION
OF D3415-041

DEO ATTACHED

RELEASED

07.02.12

DETAIL F NOTES

1. CUT TUBE LEVEL
 2. REMOVE RIDGE ON FWD SIDE
 3. LOCATE D3285-1 (TRIM AS NECESSARY)
 4. WELD D3285-1 IN PLACE PER DART QSI 004
 5. GRIND FLUSH
 6. RIVET D3415-041 NUT PLATE IN PLACE
- NOTE: MASK THREADS IN D3415-041
PRIOR TO FINISH

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--	--	---	--	--	--

DRAWING NO. D3274	TITLE SKIDTUBE ASSEMBLY	REV. D	DART AEROSPACE USA, INC ENGINEERING ORDER	D.E.O. NO. D3274-D-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>UP</i>	CHECKED <i>[Signature]</i>	MFG. APPR. <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DE APPR. <i>[Signature]</i>		
DATE 09.06.17	DATE 09.06.23	DATE 09/06/23	DATE 09/06/23	DATE 09.06.23		

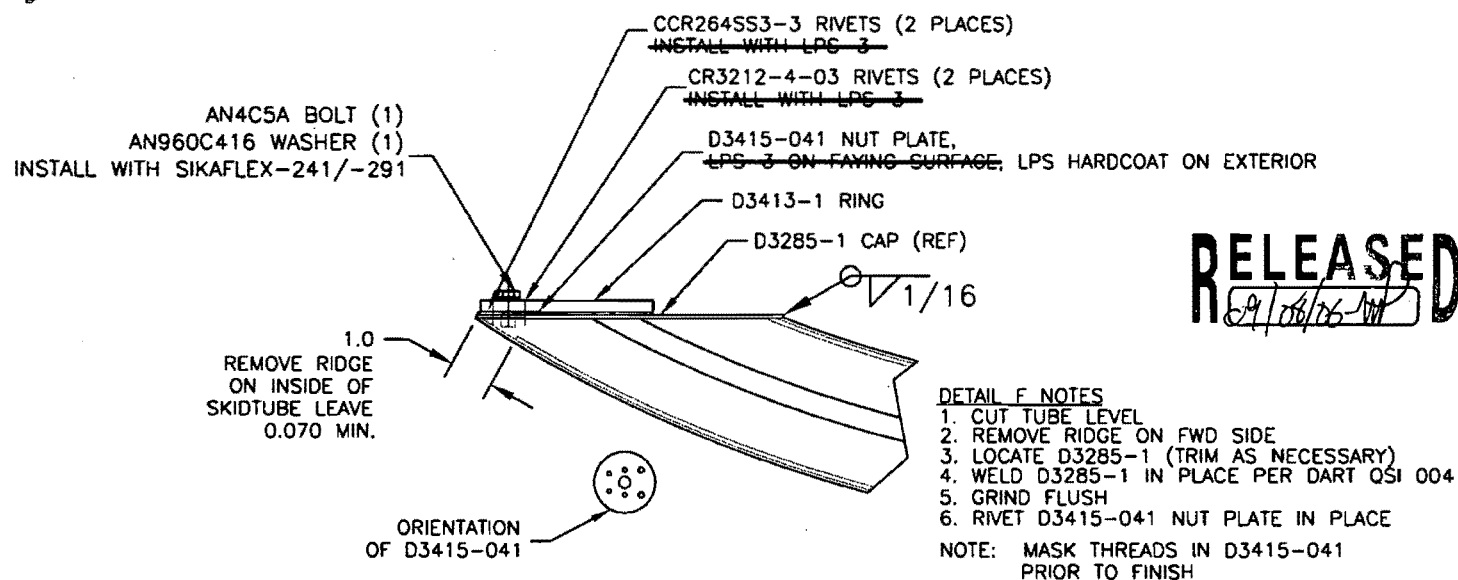
LPS-3 IS NO LONGER USED DURING ASSEMBLY OF SKIDTUBE.

AMEND NOTE 8: "~~SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES 'LPS-3' AFTER FINISH AND INSTALLATION OF INSERTS.~~
COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES 'LPS PROCYON' AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF
POWDER COATING WITH MEK DEGREASER."

AMEND DETAIL F AS SHOWN:

b56907#

DETAIL F: END FINISHING DETAIL



DETAIL F NOTES

1. CUT TUBE LEVEL
2. REMOVE RIDGE ON FWD SIDE
3. LOCATE D3285-1 (TRIM AS NECESSARY)
4. WELD D3285-1 IN PLACE PER DART QSI 004
5. GRIND FLUSH
6. RIVET D3415-041 NUT PLATE IN PLACE

NOTE: MASK THREADS IN D3415-041
PRIOR TO FINISH

NO. 252

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliott
Job number: 66358
Part number: 5206 642 541
Description: 206
Welding Process: Tig[☒] Mig[]
Base material: Aluminum
Current: AC[☒] DC[]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[]
Penetration: pass[☒] fail[]

UNACCEPTABLE

Cracks: pass[☒] fail[]
Undercut: pass[☒] fail[]
Pin holes: pass[☒] fail[]
Overlap (cold lap): pass[☒] fail[]
Porosity (surface): pass[☒] fail[]
Coloration: pass[☒] fail[]

Qualifier Pat Ryan Date of Test Coupon 11-05-09
Welder Barclay Elliott Date of Test Coupon 11-05-09

The above named individual is qualified in accordance with AWS D17.1.2001 to weld

